

## ABSTRACT OF THE DISCLOSURE

**[0045]** A technique is described for simultaneously and synchronously transmitting digital data and a clock signal in a digital integrated circuit, circuit board, or system. The technique is based on the phase shift keying (PSK) modulation of an RF high frequency carrier which is distributed on low impedance interconnection transmission lines. The PSK modulation contains the digital data while the carrier itself constitutes the clock signal, and the clock signal and digital data are transmitted in a synchronous manner. The carrier frequency may be near  $f_T$ , the maximum operation frequency of the transistors. Since the digital data and clock signal are simultaneously transmitted on the same interconnection, the digital data never becomes skewed with respect to the clock signal, or vice versa.

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